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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,485	11/13/2001	Iain C. Cooke	269/041	3178

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EXAMINER

BLACK, LINH

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,485

Applicant(s)

COOKE ET AL.

Examiner

LINH BLACK

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 21-27 is/are rejected.
- 7) ☒ Claim(s) 13-20 and 28-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 2 (element 1), figure 3 (elements 10, 15, and 20), and figure 4 (element 20) are objected to under 37 CFR 1.84(p)(4) because according to the 37 CFR 1.84(p)(4), "The same part of an invention appearing in more than one view of the drawing must always be designated by the same reference character, and the same reference character must never be used to designate different parts." However, according to fig. 2, element 1 is designated to different physical replicated databases. Please correct the numbers of the mentioned elements. Different replicated databases, for example, in fig. 2 can be assigned different element numbers as 1a, 1b, 1c, and 1d, etc...A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation "an interface for communicating" in the independent claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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3. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10, 21-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Bauer et al. (USP 5926816).

4. Bauer et al. anticipated the independent claim 1 by the following:

a local replicated database – col. 6, lines 15-23.

an interface for communicating with one or more remote replicated database via a communications link – col. 6, lines 60-66 (An interface has to be existed before clients/users can insert/update/delete/communicate with the remote database).

a synchronization manager associated with the local replicated database for sending changes made on the local replicated database to one or more remote replicated databases for reconstruction by the one or more remote replicated databases – col. 1, line 58 to col. 2, line 57.

receiving changes made on a remote replicated database, and reconstructing changes received from a remote replicated database on the local replicated database – col. 4, line 13-55.

5. As per claim 2, Bauer et al. teach wherein the synchronization manager is configured for sending changes, receiving changes, and reconstructing changes independently from one another – col. 11, lines 29-67.

6. As per claims 3 and 9, Bauer et al. teach a sequence table associated with the local replicated database for tracking changes sent to and received from remote replicated databases - col. 8, lines 3-26.

7. As per claims 4 and 10, Bauer et al. teach wherein the synchronization manager is configured for sending changes to one or more remote replicated databases in one or more change files – col. 9, lines 25-45.

wherein each change file comprises a local sequence number identifying the **local remote database** and a remote sequence number identifying each remote database to which the change file was sent, the local and remote sequence numbers being stored in the sequence table – col. 13, line 62 to col. 14, line 4. Examiner interprets the “local remote database” as local database since it is identified by a local sequence number.

8. As per claim 5, Bauer et al. teach wherein the synchronization manager is configured for receiving changes from one or more remote replica databases in one or more change files – col. 11, lines 49-62.

9. wherein each change file comprises a local sequence number identifying the local remote database, and a remote sequence number identifying the remote database from which each change file was sent, the local and remote

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sequence numbers being stored in the sequence table - col. 13, line 62 to col. 14, line 4.

10. As per claim 6, Bauer et al. teach wherein the synchronization manager is configured for monitoring activity of the local replicated database, and for reconstructing changes in a manner that substantially minimizes interference with operation of the local replicated database – col. 2, lines 5-21 and lines 47-67.

11. Claim 7 is rejected based on the same ground as of claim 1 in which the remote replicated database is equivalent to a second replicated database as of claim 7. Bauer et al. teach a second/server-side synchronization manager – col. 8, lines 28-30.

12. As per claim 8, Bauer et al. teach wherein the first and second synchronization managers are configured for reconstructing changes autonomously from one another – col. 1, lines 13-19; col. 7, line 62 to col. 8, line 39.

13. Claim 11 is rejected based on the same ground as of claim 1 in which “recent local changes” in claim 11 is equivalent to “changes” in claim 1 because Applicants teach that the replicated databases are at least intermittently communicating with one another – specification, page 5, line 7. However,

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Bauer et al. teach client nodes are intermittently communicate with the server node – col. 6, lines 41-47.

14. As per claim 12, Bauer et al. teach wherein the local and remote databases are version-managed databases, each having a plurality of versions, and wherein one version in the local database is nominated as an interface version, and wherein the reconstructing step is performed using the interface version – col. 3, lines 31-50 (in which the client maintains two versions of a table to be synchronized. One version is actively modified by the client and contains the current values of the data fields. The other version is a before-image of the replica database created at refresh)

15. Claim 21 is rejected based on the same ground as of claim 1. However, Applicants further teach the method of synchronizing is autonomous and asynchronous. However, Bauer et al. teach the first and second synchronization managers are configured for reconstructing changes autonomously from one another – col. 1, lines 13-19; col. 7, line 62 to col. 8, line 39. Bauer et al. further implicitly teach asynchronous synchronization – col. 2, lines 5-67.

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16. As per claim 22, Bauer et al. teach wherein each of the local and remote databases is a version-managed database comprising a plurality of versions, and wherein a version in each of the local and remote databases is nominated as a local interface version and a remote interface version, respectively – col. 3, lines 30-49; col. 4, line 26-38; col. 8, lines 3-39.

17. The method of claim 23, wherein each of the local and remote databases comprises a plurality of states and a sequence table comprising sequence numbers for identifying respective states – col. 8, lines 5-60.

(States are defined in the specification, page 2, lines 14-21)

18. As per claims 24 and 25, wherein the states are explicit; wherein the states are implicit – col. 3, lines 31-49; col. 8, lines 3-39.

19. As per claim 26, wherein changes sent between the local and remote databases are sent in change files – col. 2, lines 40-46; col. 3, lines 31-49; col. 9, lines 25-45.

20. As per claim 27, wherein each change file sent by the local database comprises a local sequence number identifying a state of the local database at the time the change file is sent and a remote sequence number identifying a state of the remote database known by the local database – col. 9, lines 25-45; col. 13, line 62 to col. 14, line 4.

and wherein each change file sent by the remote database comprises a remote sequence number identifying a state of the remote database at the time the change file is sent and a local sequence number identifying a state of the local database known by the remote database at the time the change file is sent – col. 3, lines 11-24; col. 8, lines 20-39.

Allowable Subject Matter

21. Claims 13-20 and 28-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 703-305-0317. The examiner can normally be reached on Monday-Thursday from 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on 703-305-9790. The


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fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306, for Before Final communications: 703-746-7239, and for After Final communications: 703-746-7238.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-7240.

Linh Black

LINH BLACK
Patent Examiner
Art Unit 2177


ALFORD KINDRED
PRIMARY EXAMINER